

## **ABSTRACT OF THE DISCLOSURE**

An apparatus and method for an electronically tuned, wavelength-dependent optical detector are disclosed. The electronically tuned, wavelength-dependent optical detector is a modified metal-semiconductor-metal photodetector comprising a comb-like metal electrode at a common voltage and metal electrodes each supplied with a control voltage by a voltage means. The wavelength to be detected in a stream of light illuminating the electronically tuned, wavelength-dependent optical detector is selected based on the set of control voltages applied to the metal electrodes using the voltage means and the relative position of the electronically tuned, wavelength-dependent optical detector. In another embodiment of the invention, the wavelength to be detected with the electronically tuned, wavelength-dependent optical detector is also selected using a standing wave generator, such as an interferometer, to produce a spatially varying light intensity on the surface of the electronically tuned, wavelength-dependent optical detector.